

Cognition, categorization and language: Cognitive Grammar meets Vantage Theory

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Abstract

Cognitive linguistics becomes more credible if it gains support from independent research on cognition. The study juxtaposes a cognitive linguistic model, Ronald W. Langacker's Cognitive Grammar (CG), with a model of categorization, primarily in the color domain, called Vantage Theory (VT), proposed by Robert E. MacLaury. The study shows that in spite of different goals and scopes of application, as well as terminological differences, the two models are congruous. Moreover, they yield parallel results when applied in analyses of language data, although VT must be adapted for the purpose. The congruence results from the cognitive basis of both CG and VT, with common ground to be found in the broadly explored notions of figure vs. ground, point of view, subject-oriented nature of meaning, and active role of the conceptualizer.

Keywords: Cognitive Grammar, Vantage Theory, functionalism, categorization

1 Introduction

Mainstream cognitive linguistics can benefit from insights offered by lesser known models. In the present paper I would like to compare one of the most widely known cognitive linguistic theories, Langacker's Cognitive Grammar (henceforth CG; mainly Langacker (1987, 1991a,b, 2000, 2008)), with MacLaury's less popular Vantage Theory (henceforth VT; mainly MacLaury (1995, 1997a, 2002)), a model of (color) categorization.

It seems that although VT did not arise as a linguistic theory, after appropriate adaptation it may be used in analyses of linguistic data. It is possible, too, to find parallelisms between CG and VT, which stem from the cognitivist foundations of both models. In the present paper, slightly more attention will be devoted to VT, as it is the lesser known of the two.

2 Categorization

VT is a model of color categorization proposed by MacLaury on the basis of about 900 interviews with the speakers of 116 languages of Mesoamerica, as well as a body of data from other language families (the technical side of the research is discussed in detail in MacLaury (1997a)). MacLaury

*While working on this paper, I received invaluable help from Ron Langacker and the late Rob MacLaury, the authors of the models I compare, as well as from Danuta Kępa-Figura and Anna Pajdzińska of UMCS, Lublin, Poland. I may be making a mistake in not following some of the suggestions of the latter two scholars. Needless to say, no-one but myself is to be held responsible for any errors and inadequacies.

identified several phenomena which could not be explained by the models then available, such as the classical theory of necessary and sufficient conditions, Zadeh's (1965) fuzzy sets or the prototype theory (e.g. Rosch (1978), Rosch and Mervis (1975)). His model is supposed to account for the method

by which people everywhere construct any color category. Seemingly, the method is unlearned from even the most intimate interaction, as between a child and caregivers or a child and peers. The method may well be known at birth as a very specific but versatile instinct for category construction. (MacLaury 2000:265)

Ultimately, at stake is not only color categorization, but categorization as such, in all spheres of human cognition.

It is here that we come across the first major difference between Langacker's and MacLaury's models. CG recognizes two complementary aspects of categorization: categorization by prototype and categorization by schema, the difference residing in whether or not there is a discrepancy between the *standard* of comparison and its *target*:

Categorization is most straightforward when there is no discrepancy, i.e. when the standard can be recognized in the target because the latter fully satisfies its specifications. In this case the two structures stand in an elaborative relationship: $[A] \rightarrow (B)$. An act of categorization may also register some disparity between the categorizing structure and the target. In this case I speak of extension, indicated with a dashed arrow: $[A] - - \rightarrow (B)$. (Langacker 2000:94)

This conception of categorization cannot, in MacLaury's view, account for at least two phenomena.¹

First, if one concedes that color prototypes are objects or phenomena in our environment (a view maintained by Rosch, but also e.g. Wierzbicka (1996:ch.10)), why in some languages does "the cool category divide into separate basic categories of green versus blue when year after year the grass and leaves become no greener and when the sky retains its eternal azure?" (MacLaury 1997a:7). In other words, the stability of the prototype, or the reference point in the real world, cannot be easily reconciled with the evolution of the color category apparently based on that prototype.

Second, in many Mesoamerican languages one finds what MacLaury calls *coextension*, a unique and previously unrecognized pattern of arranging and naming color stimuli, surfacing from the interviews. The equipment used for the interviews was the so called Munsell chart or array (Figure 1), consisting of 320 colorful chips arranged in rows according to hue and in columns according to brightness. All the chips have the maximum value of saturation. Additionally, there is an extra column on the left hand-side of the array with achromatic colors from white at the top through shades of grey to black at the bottom.

The array is a two-dimensional representation of a three-dimensional Munsell color solid, which first has to be transformed into a cylinder and then severed at a column. Traditionally, the break comes in the middle of the red area at column 40, with yellows, greens, blues and purples from left to right (though for immediate purposes the break can be introduced at any column). The array is manipulable in that it consists of individual chips and so may be randomized and derandomized at will.

MacLaury's interviews consisted of three parts: *naming*, *mapping* and *focus selection*. First, in the procedure of naming, the informant was shown each of the 330 color chips of the set in random

¹A complete list of the regularities observed in the Mesoamerican data can be found in Appendix VII of MacLaury (1997a).

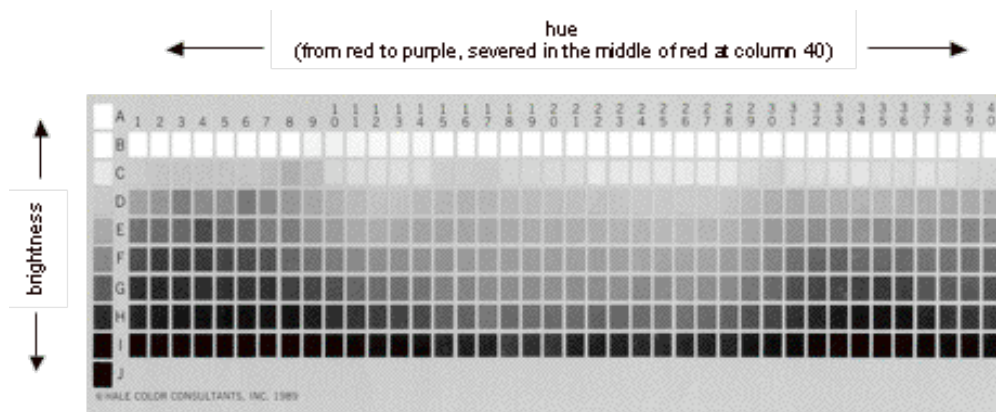


Figure 1: Munsell color array (© Hale Color Consultants, William N. Hale, Jr.)

order and asked to name it. The set was then derandomized so the naming ranges of each color term emerged. Then the informant was shown the arranged set (without the naming ranges being indicated) and asked to put a grain of rice on all chips they would refer to with a given term: this is the procedure of mapping. Finally, the informant was asked to choose the best example (the focus) of each color term used previously. In this way, the naming range, the mapping range and the focus (foci) of each terms were obtained (more details on elicitation in MacLaury (1997a:ch.3)). MacLaury identified four kinds of patterning of the three parameters, obtaining between different points of view on the same category, called *vantages* (cf. below). The most unusual pattern, usually found in warm (yellow-red) and cool (green-blue) categories, is coextension. Its characteristic feature is naming the category with two terms whose mappings substantially overlap and “the mapping of each term [encompasses] the focus of the opposite term” (MacLaury 1997a:113). As an example let us consider Figure 2, which displays the warm category in Tzeltal (Mayan family, Chiapas, Mexico), and its two terms: *k’an* (focused in the yellow-red area at E5) and *cah* (focused in red at F3).

The part of the spectrum mapped with *k’an* (Figure 2(b)) covers the focus of *cah* (its prototype?) at F3 and *vice versa*: the *cah* mapping range (in two steps, Figure 2(c)) covers the focus of *k’an* at E5. The mapping ranges of both terms overlap to a large extent. Neither prototype theory, nor the so-called classical theory of categorization or the fuzzy set theory can explain this.²

In VT it is claimed that one needs to reformulate the conception of a category and categorization. According to MacLaury, we categorize by analogy to the way we orient ourselves in space-time, in which we assume as reference points the spatial axes of up-down, left-right and front-back, united into a coherent frame of the human body, plus the changeable and relative value of motion. MacLaury (1995:240), (1997a:143) quotes Einstein’s classic example: the trajectory of a rock dropped from a moving train seems straight to the thrower but parabolic to someone standing by the track. Similarly in the domain of color: we categorize color by relating to the fixed coordinates of hue, brightness or saturation and establishing the changeable value of similarity or difference between the given coordinate and other color stimuli. The changeable coordinates constitute a continuum from maximal similarity (identity) to complete disparity, just like the value of motion is a cline from total inertia to the greatest speed possible: that of light in vacuum. Similarity and difference are

²An exhaustive treatment of coextension can be found in MacLaury (1987) and MacLaury (1997a:ch.5); less detailed accounts are included in many other publications on VT.

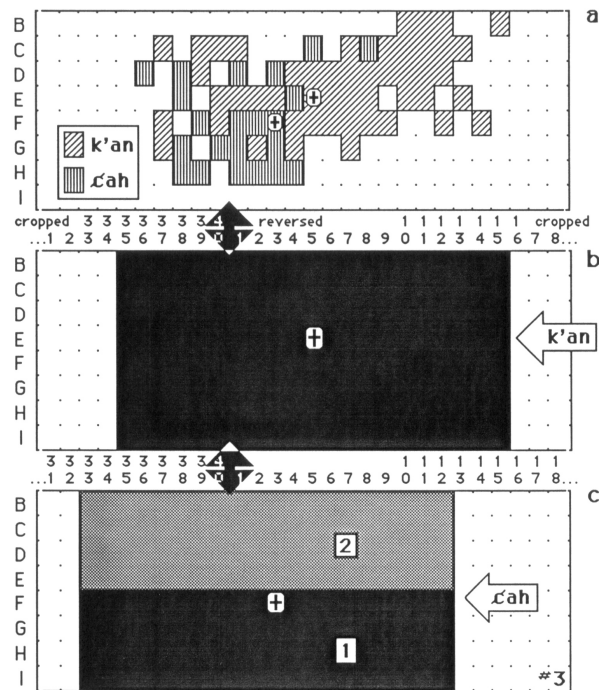


Figure 2: Tzeltal (Mayan), Paraje Nabil, Tenejapa, Chiapas, Mexico; male 65, 1980; (a) naming, (a–c) foci, (b–c) mapping (figure received by the author from Robert E. MacLaury)

inversely proportional to each other: greater similarity is smaller difference and vice versa.³ In the same way, the author of VT further claims, we construct all other categories. The fixed coordinate is a point of reference, whereas the mobile coordinates are the degrees of similarity or difference between that point and other entities. By analogy to spatiotemporal orientation, the categorizing process takes place in a subconscious and very quick manner, as quickly as one can think and speak.

The question arises as to what distinguishes this approach from prototype theory. Is not the stable, fixed reference point the same as prototype? After all, Langacker acknowledges the existence of *extensions*, i.e. units to some degree different from the prototype. Besides, in what way does MacLaury’s model explain coextension?

The most important in this respect is the conception of a category. If other models assume that a category is referred to by means of one word (e.g. in lexical semantics), VT uses the notion of a *vantage*. A vantage is an “arrangement of coordinates by which a category is constructed” (MacLaury 1997a:536–537). Within a single category one deals with one, two or sometimes a greater number of arrangements of coordinates, each of which may be named with a separate term. In other words, vantages are points of view on a category, though a point of view is not understood here as a location from which something is seen, but as a *way of seeing*: an arrangement of cognitive constructs, such as fixed and mobile coordinates and relationships between them. The two basic vantage types are called *dominant* and *recessive*: the dominant vantage is, as it were, the “default” arrangement and occurs wherever only one vantage on a category exists. (A more detailed discussion of vantages can be found in any publication on VT; for our purposes it is sufficient to note that a vantage is a way of seeing and constructing a category, a point of view which can receive its own name.)

³These are in fact two aspects of a single phenomenon: difference is the lack of similarity. However, in VT literature both coordinates are explicitly used in modeling, which convention I follow here.

What, then, is a category in VT? The theory's author defines it in this way:

A category is the sum of its coordinates: for example, a cool category is the sum of elemental green, elemental blue, a particular attention to similarity, and an attention to distinctiveness of converse strength. But a category also must consist of at least one vantage, which is an arrangement of the coordinates... (MacLaury 1997a:180).

Each arrangement is a vantage, which is but an aspect of a category. If more than one vantage of a particular category is conventional, they may be named separately (MacLaury 1999:15).

A word, then, names not a category but a vantage (point of view) taken on it. The category as a whole receives as many names as there are vantages which a speaker adopts when constructing that category.

One can now identify two aspects linking the two theories. First, for MacLaury an important factor of language use is conventionalization. He states explicitly that not everything that is theoretically possible, as a valid result of the categorizing process *qua* spatiotemporal analogy, is conventionalized. CG treats the problems in a very similar manner: Langacker says that "semantic structures are conceptual structures established by linguistic convention" (Langacker 1991a:108) or that the internal grammar of the language user representing linguistic knowledge is a "structured inventory of conventional linguistic units" (Langacker 1991a:15).

Second, the difference discussed above must not obliterate the common denominator of CG and VT, i.e. human cognitive abilities. Neither cognitive grammar nor vantage theory treats categories as objectively existing phenomena, independent of the perceiving and conceptualizing subject. Categorization, therefore, is not a process of "discovery"; rather, categories emerge and are construed as a result of people's cognitive actions (cf. the preface to Taylor and MacLaury (1995); also Blount (1996) and Lehman (1996)). I discuss some aspects of this approach below.

3 The active role of the conceptualizer

Another point of convergence between VT and CG is the active role of the conceptualizer or language speaker. As mentioned above, the same respondent during a single interview may use two terms in reference to the same color category, the choice being apparently independent of context or any other identifiable external factors. MacLaury (1997a:112–113) says:

Semantic coextension is inexplicable solely in terms of perceptual axioms, because different organizations of the same colored stimuli by a single individual during one short interview do not inhere in neural response to wavelength. It is the observer who assumes opposite slants on the same sensations and names them differently from each angle.

The scholar very consistently develops the view that the process of categorization is plastic and independent of a person's age, sex, environment or culture. This does not mean, obviously, that these factors, especially culture and conventionalization, have no bearing on the process:⁴ language

⁴In some cases there is correlation between the age of the speaker and the actual shape of the dominant-recessive pattern. For example, MacLaury (2003) found that younger speakers of Tzeltal emphasize difference more than their elders, which might suggest that they more easily attune to novelty brought by the quickly changing environment, whereas the latter find it difficult to do so.

diversity is a fact. The diversity, however, results not so much from external factors as from the way in which humans mentally organize the world, i.e., by performing the spatiotemporal analogy. One may recall here the Tzeltal data referred to above: a speaker alternatively uses *k'an* or *¢ah* to name the warm category with no apparent reason for the alternation.⁵

Associations with Langacker's notion of *construal* (or *imagery*) arise naturally. The phenomenon is defined as the ability of speakers to "conceptualize the same situation in alternate ways" (Langacker 1998:4): it is present in all languages but in its details shaped by the systems and conventions of individual tongues. Even related languages, such as English and Polish, provide numerous examples of different realizations of construal (cf. Langacker (1995:99)):

- (1) English
 - a. The last few years have witnessed amazing political changes.
 - b. Over the last couple of years we have witnessed amazing political changes.
- (2) Polish
 - a. *W ciągu ostatnich kilku lat byliśmy świadkami zdumiewających zmian politycznych.*
'Over the last couple of years we have witnessed amazing political changes.'

The subject of the English sentence may be an expression of time (*the last few years*) or the human participants (*we*). A speaker of Polish cannot use a construction analogous to the first of the two: it is simply unavailable. However, the Polish sentence can be rendered in a parallel manner in English with the human participants (*my—we*) as the subject. Thus, the repertoire of expressions in English and Polish is different, which means that the universal ability of construal results in different inventories of available constructions. One of the major tenets of VT amounts to the same effect: the diversity of (color) categories in the world's languages results from active applications of the same mechanism of category construction.

4 Mental distance. Subject and object of conceptualization

Another area where CG converges with VT are the notions of *subjectification* and *objectification* (cf. Langacker (1990), (1991b:93); MacLaury (1997a:281–282, 284–286)). In CG, the everyday meanings of the words *objective* and *subjective* are very different from those intended by Langacker (1990:6):

[T]he terms... will be used here in a special, technical sense—though related, their values will not be taken as equivalent to those implied when speaking of a judgment being subjective vs. objective (i.e. "personal, idiosyncratic" vs. "impartial, based on solid evidence"), or even in referring to subjectivist vs. objectivist theories of meaning.

CG proposes that depending on the degree of the conceptualizer's concentration on the conceptualized object, the status of both changes: the more the conceptualizer focuses on the object, the more "objectified" the latter, while the former preserves its status as the subject. The resulting *asymmetry* is proportional to the degree of mental distance of the conceptualizer from the region or scene to which the conceptualizing process pertains. Greater asymmetry results in a greater distance and *vice versa*: in the former case the conceptualizer is subject-like to a greater extent. The conceptualizer, however, may approach or even enter the scene and become more of the object of conceptualization

⁵MacLaury suggests (p.c.) that there might be a reason for people to behave in this way, but it remains a mystery at the present stage of research.

at the expense of their status as the subject: the process is called objectification.⁶ The greater the degree of the conceptualizer's objectification, the smaller the asymmetry (mental distance) between the subject and the object.

In order to relate to the interpretation of these phenomena offered by VT, we need to describe the notion of *viewpoint* as it is understood in that theory (MacLaury 1997a: 280-283; 1999: 54-55; 2002: 528-529). VT distinguishes four categories of viewpoint, depending on the degree of subjectivity and objectivity of viewing, VP-1, VP-2, VP-3 and VP-4, of which VP-1 is the most subjective and VP-4 the most objective. In language, VP-1 is atypical, if at all possible: perhaps it surfaces in an internal monologue of the type *Good heavens!*, in which the conceptualizer engages in a conversational exchange with him- or herself. Much more common are cases of VP-2 and VP-3. VP-2 is present in sentences of the type *There's the book*, in which the position or the very existence of an object is identified relative to the speaker, or in deictic expressions such as *here* or *now*, in which the place or time are conceptualized egocentrically. VP-3 is when the position of the observer cannot be established or when they use another entity as a reference point, e.g. *The book is in front of Harry*. This is more objective viewing, performed, in the mental sense, from a greater distance. Finally, VP-4 is an omniscient perspective, as if of Divine Providence. It is very rare or perhaps impossible to attain in pure form. In language, one approaches it when describing something objectively, e.g. *A dog is in the yard*: "[a]lthough there must be a point of view from which to envision the scene, its location is unspecified or unimportant" (MacLaury 1997a:280).

I will now try and juxtapose this model with Langacker's conception. What the latter calls an asymmetry between the subject and object of conceptualization, correlated with a greater distance of the conceptualizer from the scene, MacLaury refers to as a degree of objectivity. A greater asymmetry between the subject and object, resulting from a greater subjectivity of the conceptualizer, corresponds to a greater degree of objectivity in MacLaury's understanding of the term (this is when the conceptualizer is more detached from the scene). And so, smaller asymmetry, resulting from the objectification of the subject, is by MacLaury referred to as a greater degree of the subjectivity of viewing (when the conceptualizer approaches the object of conceptualization).

Noticing these parallels, MacLaury (1997a:279-282) offers a critique of an aspect of Langacker's model.⁷ The author of VT claims that for the conceptualizer to be objectified (and so for the asymmetry between the subject and object to decrease), the perceptual frame must involve more than one viewpoint. If, in Langacker's terminology, the conceptualizer mentally "enters" the scene, and as a result the status of that conceptualizer is more object-like (which in MacLaury's terminology would be tantamount to a shift from a more objective to a more subjective viewpoint, e.g. from VP-3 to VP-2), the increase in objectivity "requires implicitly that a second vantage be maintained on the outside from which to regard the inner viewpoint as 'on stage'" (MacLaury 1997a:279). An example will help us clarify the argument. MacLaury analyzes Langacker's sentence (Langacker (1990:6, 10-11); quoted in MacLaury (1997a:281f)):

(3) The rock is in front of the tree.⁸

⁶It is intuitively appealing to say that the conceptualizer may never be fully objectified and has to preserve its subject-like status, however minimal.

⁷It is tentative, as evidenced by his comment: "I am uncertain that I have done justice to Langacker or even understood him" (MacLaury 1997a:10).

⁸MacLaury quotes Langacker imprecisely: the latter's example is in fact *The tree is in front of the rock*. The author of VT does so through inattention (p.c.) but it enables him to add a note on cultures in which various objects, including trees, are deemed to possess inherent fronts and backs (MacLaury 1997a:495, note 6).

According to Langacker, in sentence 3 some elements of the ground,⁹ in this case the speaker, are included inside the expression's scope of predication. The position of the rock is defined in relation to the locations of the speaker and the tree: it falls on the line connecting them. The situation is depicted in Figure 3(b). Notice that in comparison with the situation in 3(a), the speaker (an element of the ground), participates in the process of locating the tree and the rock in a more active manner: sentence 3 means "the rock is in front of the tree *from my point of view*." Figure 3(a), in turn, depicts a situation in which the asymmetry between the conceptualized object in the onstage region and the ground (the conceptualizer being one of its elements) is maximal.

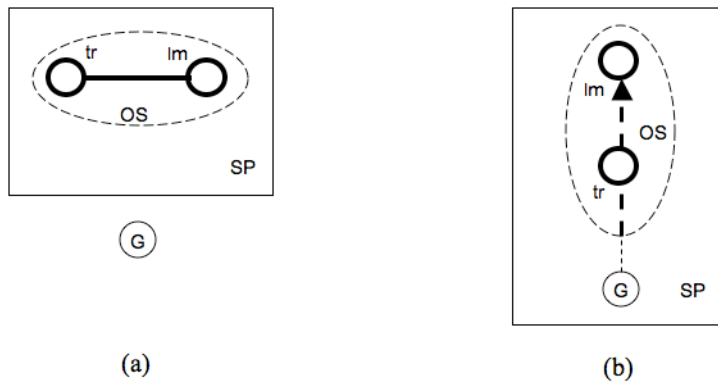


Figure 3: Examples of viewing arrangements: the ground (a) beyond the scope of predication and (b) inside it (based on Langacker (1990:10, Fig. 3)). G—ground; SP—scope of predication; OS—onstage region/objective scene; tr—trajector; lm—landmark

The analysis of this sentence offered by MacLaury complements and elaborates on Langacker's. In the VT framework, the conceptualizer projects a certain vantage on the situation, arranging the coordinates in a particular way on several levels, in this case four. Figure 4 presents the formal notation.

	Fixed coordinates	Mobile coordinates
1	VP-3	tree
2	tree	VP-2: orientation
3	VP-2: orientation	front
4	front	rock

Figure 4: Vantage on a situation in *The rock is in front of the tree* (MacLaury 1997a:282, Fig. 9.14)

⁹Ground here is "the speech event, its participants, and its setting" (Langacker 1987:489) and differs from *ground* in the figure/ground organization. Langacker (1987:126) admits that the ambiguity may lead to confusion but two meanings are not totally independent and the term is too useful to be dispensed with. However, in a lecture in Kazimierz, Poland, in 1993, he said that sometimes it is necessary to apologize for the cognitive grammar terminology. Consequences of the choice of terms only become apparent after some time. In this particular case a better option might perhaps be *anchoring* (Langacker 1995:102).

First, on level 1, the conceptualizer identifies the existence of the tree, “anchors” it relative to himself or herself by virtue of referring to it. However, in English-speaking cultures trees do not have inherent fronts or backs, which is why on level 2 the initially mobile coordinate ‘tree,’ already a fixed coordinate by that stage, serves as a reference point for identifying the tree’s orientation. Its front is where the person looks at it: in this way the conception of the tree is endowed with a structure and a viewpoint (VP-2) to become the basis for further stages of vantage construction. One of the sides of the tree, in this case the front, is selected on level III. Finally, on level IV, on which the tree’s front is already a fixed coordinate, the position of the rock is identified relative to it. Crucially, the conceptualizer retains their more objective VP-3 throughout the process, from which they can observe and describe the whole scene. The more subjective VP-2, i.e., “the viewpoint of the tree” established relative to the conceptualizer, is viewed by the conceptualizer from the outside (should the conceptualizer assume VP-2, the situation might be described as *That’s a rock in front of me*). In CG terminology, we would say that although the asymmetry between the subject and object of conceptualization decreases (VP-3 changes into VP-2), it retains its high value at the highest vantage level, so that in the whole vantage there are two values of the asymmetry.

As can be noticed, MacLaury’s critical remarks on Langacker’s analysis in fact constitute a complementation of the latter: vantage construction is retaining earlier levels of viewing in memory and using new information (mobile coordinates) as known information or reference points (fixed coordinates). Langacker’s reasoning is in fact very similar, which I attempt to show below.

5 Figure/ground organization

An important aspect of the process of vantage construction is that at any one time a person can only concentrate on one level of conceptualization:

An individual can keep foremost in mind only one fixed and one mobile coordinate but can “zoom in” and “zoom out” through the hierarchy while maintaining awareness of the other levels as presuppositions. The zooming process is analogous to any spatial narrowing of scope, as in “the newspaper is on the living room table”. To find the newspaper, one must locate the living room in reference to the house, the table in reference to the room, and the newspaper in reference to the table. People constantly zoom in and out during the waking day when they enter and leave structures, confine or diffuse their attention, locate objects or wend their way from place to place. In a hierarchically ordered vantage, one zooms in by converting a mobile coordinate to a fixed status and concentrating upon a new mobile coordinate; one zooms out in the reverse order (MacLaury 1995:243–244).

By analogy, the quick and subconscious transfer from one level to another also obtains in sentence 3 above: while juxtaposing the coordinates at a given level, the conceptualizer retains other levels of the vantage in memory.

Let us notice some degree of similarity between this reasoning and Langacker’s analysis of the so-called nested locative constructions, such as (cf. Langacker (1993:28)):

- (4) Your copy of *Women, Fire, and Dangerous Things* is downstairs in the study in the bookcase on the bottom shelf next to the *Illustrated Encyclopedia of Glottochronology*.

The author writes:

[A]s we move from locative to locative..., we initially focus our attention on the downstairs region;¹⁰ we then use that region as a reference point for directing our attention to the interior of the bookcase; taking that interior region as a point of reference, we can then establish mental contact with the surface of the appropriate shelf; and with that as reference point, we can easily zoom in on the final spatial target (the area adjacent to the encyclopedia). Observe that each target, once reached, functions in turn as reference point for purposes of reaching the next target (the search domain of the following locative) (Langacker 1993:27).

MacLaury's and Langacker's analyses are very similar and some terms are even the same (e.g. *zooming*). The models appear to be congruent.

Let us also notice that this way of viewing a scene can be described in terms of *figure* and *ground*, fundamental constructs in Langacker's theory (cf. Langacker (1987:ch.6); (1991a:9–10)). MacLaury, too, while analyzing the example with a newspaper, uses the notion of ground to refer to fixed coordinates, and that of figure to refer to mobile coordinates. What on one level of construal is a figure (e.g. the table in relation to the room), becomes the ground on the other, relative to which a new figure (the newspaper) is located.

If the notions of figure and ground are so useful, can one not remain faithful to the established terminology, rather than introducing the somewhat unclear notions of fixed and mobile coordinates? MacLaury's (1997a:140) answer is the following:

Coordinates are not precisely things in themselves, such as a table or a newspaper, but a selective emphasis upon certain things at the expense of ignoring other things in the environment... Although they are represented by real things and based on real things, they are mental points of reference...

Someone who knows their house well, the author continues, may be able to find the newspaper on the living room table in total darkness without touching anything. It is also possible to mentally invoke images which do not have in the environment, in specific circumstances, any perceptually accessible correlates (as is the case with unique hues, which can serve as fixed coordinates for constructing color categories in darkness). Even in fantasizing we can readily construct categories on the basis of coordinates which have no counterparts in reality. MacLaury (1997a:140) concludes:

Regarding all coordinates as thoughts rather than things, it is easier to accept the fundamental idea of vantage theory—that coordinates can be set up analogically to form a category as a purely mental construction which is, nevertheless, treated as a physical space. The [space-time : categorization, A.G.] analogy is performed between two systems of thought, not between a couple of things and a system of thought.

All coordinates at all levels are important for a vantage to constitute a coherent “frame,” a holistic “take” on a category. Note that Langacker (1988:59–60) defines the semantic value of a linguistic expression in a very similar manner, treating it as a result of combined imports of the *profile* and *base*, notions deriving from figure and ground:

¹⁰Even though it in no way weakens the strength of the argument, Langacker in fact skips one level, “in the study,” and moves directly from “downstairs” to the bookcase. Alternatively, one may treat the whole of “downstairs in the study” as the starting point. Credit for this observation goes to Anna Pajdzińska of UMCS, Lublin, Poland.

An expression's meaning does not reside...in either the base or the profile alone. Both facets of a predication are crucial to its value.... For instance, if we suppress the profiling of *hypotenuse*..., what results is no longer the conception of a hypotenuse, but simply that of a right triangle; if we suppress the unprofiled portions of the base..., there is no basis for identifying the remaining line segment as being a hypotenuse, which exists only in the context of a right triangle. The base of a predication can thus be thought of as the "frame" needed to establish the character and identity of the intended designatum: a person qualifies as a *cousin* only when linked to another individual through a series of kinship connections; a span of idle time constitutes an *intermission* only if it interrupts some type of performance; and only the extremity of an elongated object can be recognized as a *tip*.

Figure and ground are, then, key notions in both VT and CG, even if the language of description in the two models is different.

6 Are cognitive processes innate and embodied?

The parallelisms discussed above derive among others from the fact that cognitive processes are considered as innate (or at least the hypothesis is deemed sensible) and as such are grounded in our genetic, neurological and bodily structure. MacLaury's views on the innateness of human cognitive processing are the following:

Where do people learn how to construct a category by analogy to a vantage in space-time? The only apparent answer is that the propensity is inborn, which implies that it resides in human genes and, thus, is instinctive. It would seem less radical to propose that categorization, irrespective of how it is achieved, is an innate human propensity. But that seemingly safer idea ignores the connection between a category and its making. If categorization is innate, then the method of creating a category, maintaining it, and changing it must also be inborn (MacLaury (1995:247), (1997a:180)).

Although this is only a hypothesis, it is one that for MacLaury seems the most plausible. Langacker (1991b:1), too, is inclined to accept a similar point of view. Although referring to his approach as agnostic, just a few lines below he states:

It is not unreasonable to suppose that basic categories like these [direct object, noun, verb, possession, motion, and substance, A.G.] owe their universality to rudimentary, presumably inborn cognitive abilities (Langacker 1991b:8–9).

No doubt, whether categorization or the constructs mentioned by Langacker are in fact innate remains to be established. Problems with this approach are discussed by Nyan (2002), who draws attention to the difficulties in finding neurological correlates of theoretical constructs, as well as to very rigorous criteria which a process must meet in order to be regarded as innate. But Nyan can see a chance of finding the neurological basis of categorization, as understood by MacLaury, through carefully planned and prepared research on goal-oriented activities, especially on divergent thinking and decision making.

On the question of the embodiment of cognitive processes MacLaury and Langacker are virtually of one mind. The former refers to Johnson's (1987) classic work and considers the experience of our bodies and their interaction with the environment as crucial not only for abstract thinking but all

categorizing processes (MacLaury (1995:247), (1997a:180)). For Langacker, mental activity, thinking and concept construction are essentially (very complex) neurological and electrochemical processes, i.e., ones very deeply anchored in our organisms (Langacker 1987:100).

7 Some linguistic analyses

Most crucially, parallelisms between CG and VT may be found in analyses of specific linguistic phenomena. Some of the attempts to apply VT to problems of language remain unpublished, some have been collected in a special issue of *Language Sciences* (2002, vol. 24, no. 5–6), others will appear in print in another special issue of the same journal devoted to Vantage Theory, still others are scattered in various sources. The subjects covered include connotations of color terms, lexical semantics, the category of number, the dynamics of discourse, the English articles, the English aspect, the English determiners, diachronic semantics, language learning, the Japanese syllabary system, social aspects in Japanese speech, song lyrics and others. Let me briefly refer to but one of these studies, which shows that CG and VT can be brought together to arrive at congruent conclusions.

The problem I am referring to is the distinction between the simple and progressive aspects¹¹ of the verb *feel* in compound sentences in which the subordinate clause has the form *whenever [somebody] feels/is feeling [something]* (Głaz 2002). In CG aspect is described in terms of *boundedness* (Langacker (1987:258–262), (1996)), which in turn is linked with the notions of point of view, perspective and mental distance of the conceptualizer from the object of conceptualization. These notions are also invoked in the VT analysis of the problem. It appears that the *feels/is feeling* distinction is a derivative of the basic human cognitive ability to see and underscore similarities or differences between entities: the ability is taken in VT as the basis of all categorization. The use of the simple or the progressive aspect and the ability to assume points of view characteristic of either aspect is a consequence (VT term: *entailment*) of stronger emphasis on similarity or difference between the events or situations being described. A comparison of the CG and VT analyses is very revealing: although different from CG in details, VT offers additional support for attempts to describe language in terms of human cognitive abilities, especially in terms of categorization. Such is after all the major goal of not only CG but cognitive linguistics as a whole.

8 The problem of linguistic relativity

Both Langacker and MacLaury devote much attention to the problem of linguistic relativity and the relationship between language and thought. Their overall approach to the Sapir-Whorf hypothesis is similar. Langacker (1991a:108–109) claims that different languages impose different semantic structures on conceptual structure, where semantic structure is simply “conventionalized conceptual structure – the form which thoughts must assume for purposes of ready linguistic symbolization.” Semantic structure, however, does not rigorously determine how speakers can or cannot deal with conceptual structure; therefore, his position is partially Whorfian:

Whorf is of course correct that “the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds” (Carroll 1956:213) However, I disagree with Whorf’s claim that it is primarily language that accomplishes this organization. Children perceive discrete objects in their environment long before they have

¹¹I assume here that English in fact does have aspect, a view not supported by e.g. Sullivan and Bogdan (2003).

names for all of them (Langacker 1976:310).¹²

Although the quote comes from before the publication of the major works on CG, the author's views on our ability to see "through the conventional images of our language" (Langacker 1991a:353) have not changed since then in any significant manner.

MacLaury (2000), in turn, adduces a number of arguments against the Sapir-Whorf hypothesis but in favor of relativism, the nature and roots of which are understood differently from Whorf. The arguments pertain to (i) the sequence of the division of warm (yellow-red) and cool (blue-green) categories into separate yellow/red and blue/green categories, respectively (2000:256–259); (ii) linguistic innovation of informants during interviews (2000:259); and—most striking of all—(iii) differences in structuring the same category, with the use of the same terms, by speakers of the same dialect of the same language (Okaina,¹³ Tzeltal), living in the same hamlet (2000:260, 270–275). MacLaury (2000:260) says:

Categorization is notably plastic, even in a domain that harbors neurally determined elemental colors at different fixed perceptual distances from each other. The guiding neurology has previously been cited in arguments against the Sapir-Whorf hypothesis (e.g., Rosch (1974)). However, we find people categorize with considerable freedom within those constraints. The freedom does not tilt the argument back into favor of Sapir-Whorf but rather further inveighs against the influence of language on thought. People think as they wish and even disagree within a village dialect, naming their thoughts, however diverse, with the same words.

Otherwise phrased, the force of language is too weak to influence the categorizing process; words are incapable of "holding concepts at one shared state" (MacLaury, p.c., Jan. 16, 2002). MacLaury treats linguistic diversity as a consequence of cognitive processing. He proposes, somewhat paradoxically, to reconcile universalism and relativism: universal but plastic *categorizing abilities* enable the emergence of diverse *categories*.

9 Towards further research

It is not possible to exhaustively compare CG and VT in a single paper; some issues, e.g. the conception of viewpoint, require a more extensive elaboration and exemplification. The aim of the present work is to outline the areas in which one could look for and in fact find congruences between the two models. I would now like to devote some space to yet another one of those areas: the role of culture.

VT is a universal model of categorization. Apart from Mesoamerican data, MacLaury applies it to color categorization in other language families; for example, MacLaury (1997b) analyzes one of the tongues of Papua New Guinea, while MacLaury *et al.* (1997) describe the red category in Hungarian. The VT approach is thoroughly emic¹⁴ (MacLaury (1997a:182)): it avoids judgments of cultures

¹²Obviously, one must also remember about the Whorfian heritage in cognitive linguistics (cf. Lakoff (1987:ch.18, esp. pp.328–330), or Stanulewicz (1999)).

¹³A Witotoan language spoken in Colombia and Peru.

¹⁴The terms *emic* and *etic* come from Pike (1954); cf. Casad (2003)). Fishman (1974:1649) shows how they are to be understood and employed in research:

An *emic* set of speech acts and events must be one that is validated as meaningful via final recourse to the native members of a speech community rather than via appeal to the investigator's ingenuity or intuition

from the point of view of the researcher and relies on native speakers' intuitions. Langacker, too, acknowledges the role of culture in linguistic research. For example, in their analysis of Cora locatives *u/a* 'inside/outside', Casad and Langacker (1985) uncover a certain type of reasoning characteristic of that language and analyzable only in connection with many other elements of its semantic structure. Therefore, it is an emic description: attempts to explain the meanings of these particles from the point of view of a speaker of an Indo-European language may only reveal their apparent inconsistency. A coherent and comprehensible picture arises as a result of search for an idiosyncratic motivation of these usages in Cora. As is required of an emic analysis, Casad (p.c.) was able to see the relevant semantic structure only when advised by a native speaker of Cora. The fact that the constructs of CG can be used for the purpose testifies to the universal nature of basic human cognitive abilities.

In another publication, Langacker (1997:240–241) talks about the role of culture in the following way:

[D]espite its mental focus, cognitive linguistics can also be described as social, cultural, and contextual linguistics. One manifestation of its cultural basis is the doctrine of encyclopedic semantics. An expression is meaningful by virtue of evoking a set of cognitive domains and imposing a certain construal on their content.... In large measure these domains consist of cultural knowledge: most of what we say pertains to cultural constructions or to entities whose apprehension is in some way culturally influenced. Moreover, language itself is recognized as the creation and reflection of a culture as well as a primary instrument for its constitution and transmission.¹⁵

It appears, then, that universal human cognitive processes result in different patterns of behavior in different cultures, which, however, can be described in a coherent manner: such is the position of both CG and VT.

This and several other issues pertaining to the general conception and tenets of CG and VT, as well as to their respective descriptive apparatus, require further research. The convergences but also divergences mentioned above suggest that the endeavor is not only sensible but in fact promising.

10 Conclusion

A juxtaposition of cognitive linguistic models (such as CG) with those that are based on cognition but do not originally pertain to strictly linguistic issues (e.g. VT) may be of great value to cognitive accounts of language. Despite unquestionable differences between CG and VT, the two theories exhibit clear parallelisms. Moreover, analyses of specific data couched within these theories lead to congruent results, which testifies to a high degree of credibility of each model as an independent whole.

The major difficulty in the comparison is that VT is “merely” a model of categorization and in its original formulation does not extend beyond the level of a specific domain of lexis, whereas CG

alone.

[It] is best approximated...by playing back recorded samples of “talk” to native speakers and encouraging them to react and comment upon the reasons for the use of variety *a* “here” as contrasted with the use of variety *b* “there”. [The verification must come] from within the speech community.

¹⁵It is regrettable, however, that Langacker's preoccupation with culture remains largely programmatic, as pointed out by Jerzy Bartmiński and other representatives of the Lublin ethnolinguistic school (for a presentation of the Lublin ethnolinguistic research, cf. Bartmiński (forthcoming)).

is thought of as a global approach to language in all its aspects. Application of VT to linguistic data would facilitate creation of a coherent description of anthropological and linguistic data, which “no specific theory has to date been able” to do (Achard 1999:242). VT may also shed light on the problems emerging in cognitive linguistic endeavors, pinpoint their weaknesses or suggest modifications and directions for development, because according to Langacker (1999:21):

[E]ven a cursory reading of some basic works in cognitive grammar should make it evident that... the descriptive enterprise cannot proceed autonomously, that language is not a discrete and separate psychological entity, and that a “linguistic system” is neither static nor clearly delimited.

As a result of endeavors like the present one, we would like to see more clearly the connections between human cognitive processing and language, which is the major goal of cognitive linguistics, including CG as one of its specific manifestations.

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